Preventing COVID-19 Severe Disease in Maine (Why Are People Still Dying from COVID-19?)

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Disclosures

Dr. Isaac Benowitz, faculty for this educational event, has no relevant financial relationship(s) with ineligible companies to disclose.

Objectives

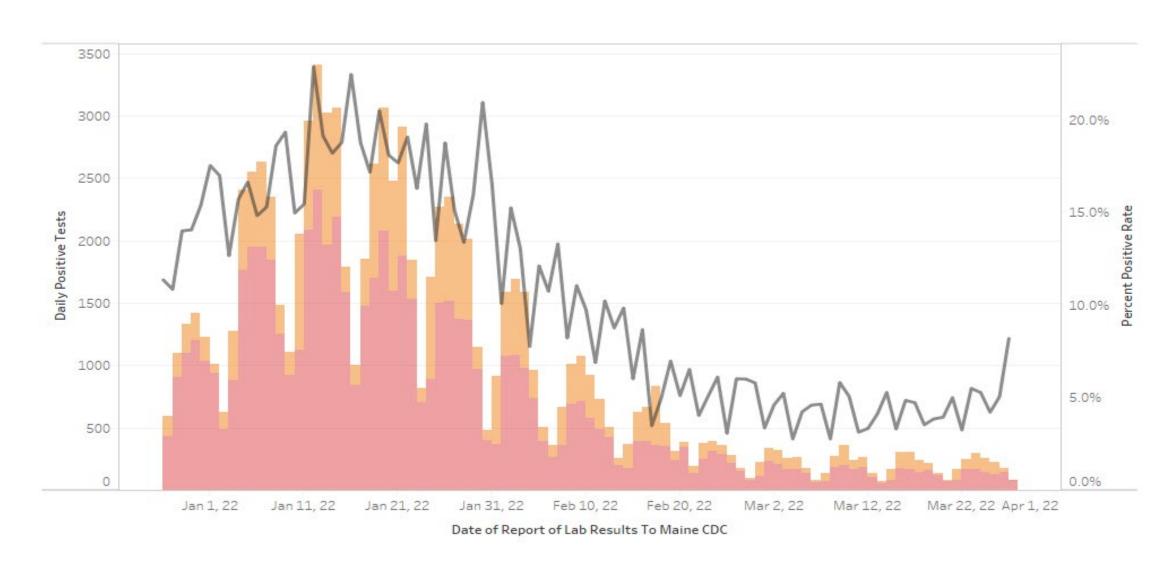
1. Describe who is at highest risk for COVID-19-associated hospitalization and death if infected

2. Describe several oral and IV therapeutics for treatment of COVID-19 in the outpatient setting

3. Describe who to treat for COVID-19 <u>and</u> how patients access these treatments in the State

COVID-19 in Maine, Hospitalizations, and Deaths

COVID-19, Maine, Jan-Mar 2022



COVID-19 hospitalizations, Maine, Jan-Mar 2022





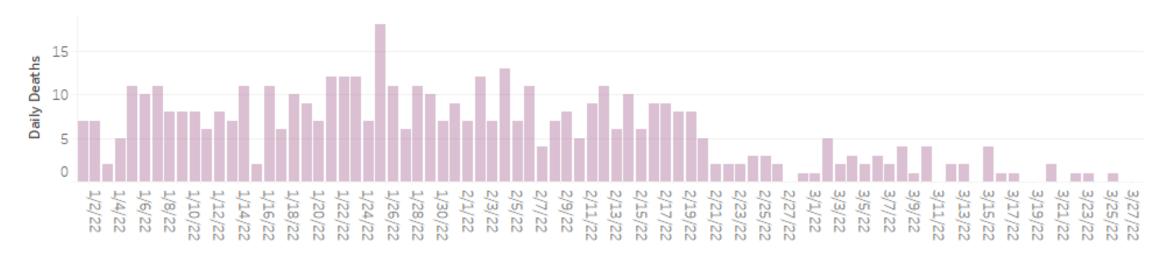
COVID-19 Patients in Critical Care



COVID-19 Patients on Ventilators



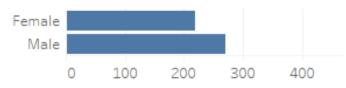
COVID-19 deaths, Maine, Jan-Mar 2022



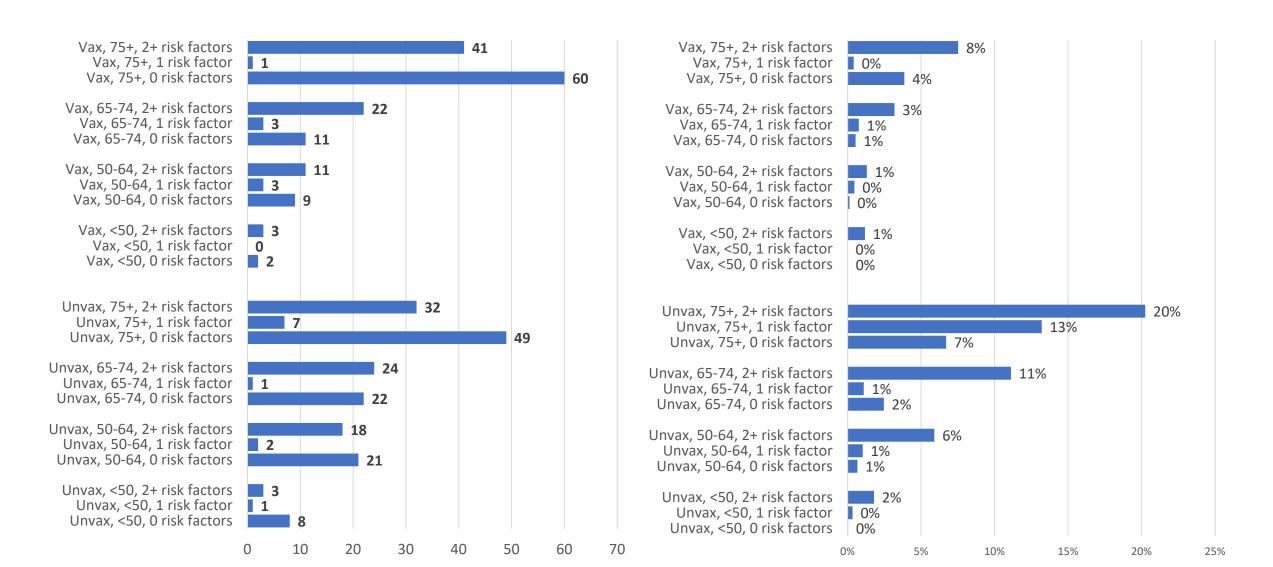
Deaths Per Population By County Showing Deaths From January 1, 2022 to March 27, 2022



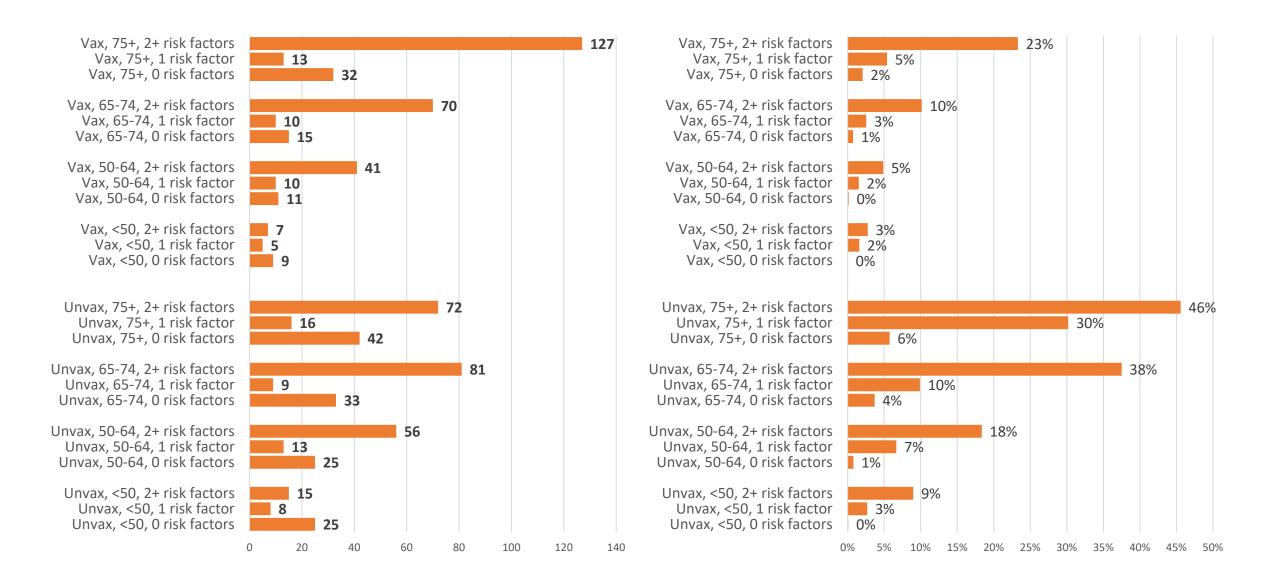
Deaths by Gender Showing Deaths From January 1, 2022 to March 27, 2022



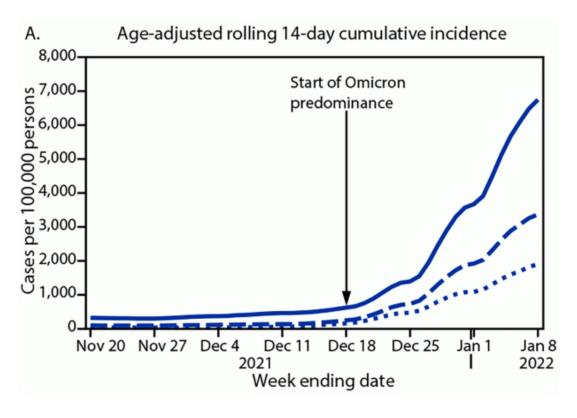
COVID-19 death and %, Maine, Jan-Feb 2022

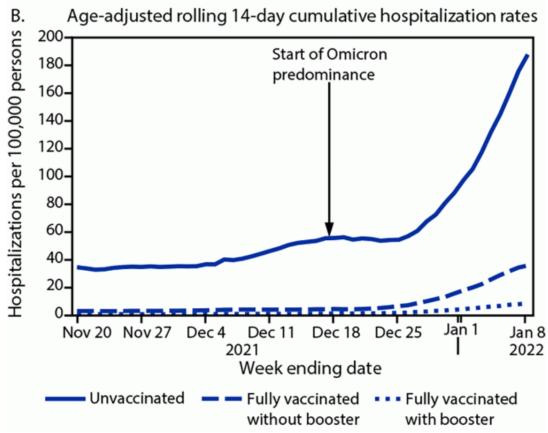


COVID-19 hospitalizations and %, Maine, Jan-Feb 2022

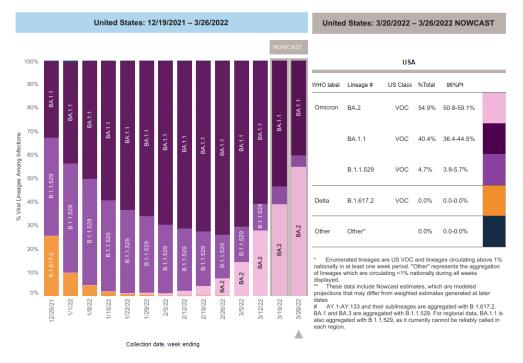


Severe outcomes vary by vaccination status

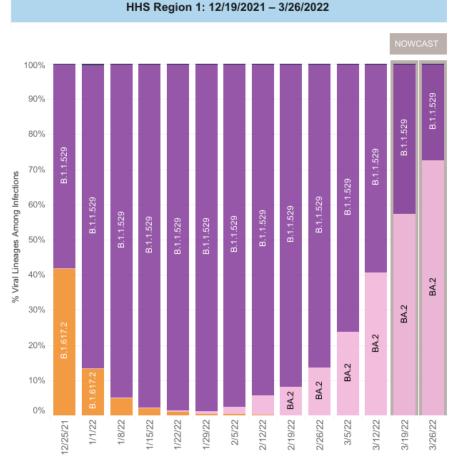




COVID-19 Variants of Concern: US and Region 1







HHS Region 1: 3/20/2022 - 3/26/2022 NOWCAST

Region 1 - Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont

WHO label	Lineage #	US Class	%Total	95%PI	
Omicron	BA.2	VOC	72.6%	62.5-81.0%	
	B.1.1.529	VOC	27.4%	19.0-37.5%	
Delta	B.1.617.2	VOC	0.0%	0.0-0.0%	
Other	Other*		0.0%	0.0-0.0%	

^{*} Enumerated lineages are US VOC and lineages circulating above 1% nationally in at least one week period. "Other" represents the aggregation of lineages which are circulating <1% nationally during all weeks displayed.</p>

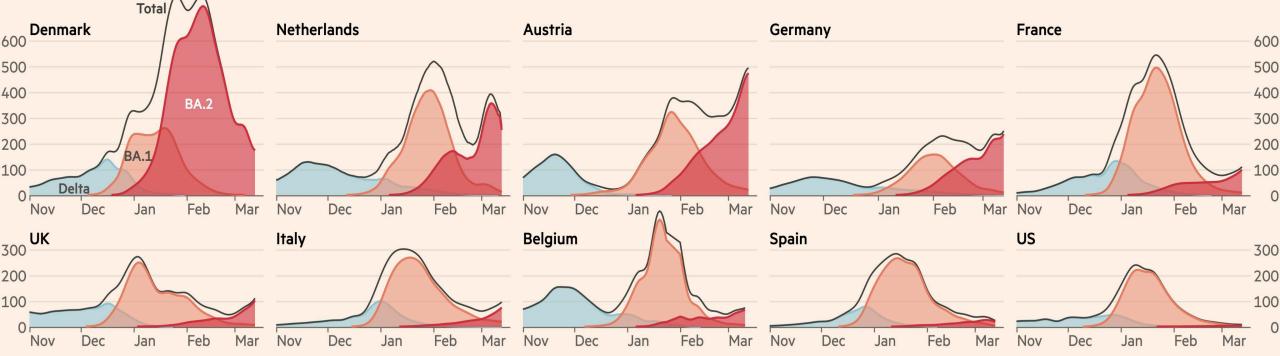
^{**} These data include Nowcast estimates, which are modeled projections that may differ from weighted estimates generated at later dates

[#] AY.1-AY.133 and their sublineages are aggregated with B.1.617.2. BA.1 and BA.3 are aggregated with B.1.1.529. For regional data, BA.1.1 is also aggregated with B.1.1.529, as it currently cannot be reliably called in each region.

Is a BA.2 wave on its way to shore right now?

The BA.2 Omicron sublineage has displaced the original strain and is driving new surges in cases across Europe, with Denmark and the Netherlands now past their BA.2 peaks

7-day average of new confirmed cases per 100k people, by variant*



*Each variant's share of all cases estimated using method from Tom Wenseleers / @TWenseleers, then applied to case rates Source: FT analysis of data from Johns Hopkins CSSE, World Health Organization and Gisaid

FT graphic: John Burn-Murdoch / @jburnmurdoch

Prevention of COVID-19 infection: vaccines and drugs

COVID-19 Preventative Agents & Therapeutics

No Illness

Exposed

Per CDC Close Contact Criteria Mild to Moderate Symptoms

Hospital Admission

ICU Admission

Baseline health status, no infection

Not hospitalized, no limitations

Not hospitalized, with limitations

Hosp. no act. medical problems

Hospitalized, not on oxygen

remdesivir

Hospitalized, on oxygen

Hospitalized, high flow oxygen/ non-invasive ventilation Hospitalized, mechanical ventilation/ ECMO

COVID-19 VACCINES

Monoclonal Antibodies for PrEP

 tixagevimab + cilgavimab (AZ)

Monoclonal Antibodies for PEP

- casirivimab + imdevimab (RGN)**
- bamlanivimab + etesevimab (Lilly)**

Oral Antivirals

- Paxlovid™ (Pfizer)
- molnupiravir (Merck)

Monoclonal Antibodies for Treatment

- bebtelovimab (Lilly)
- sotrovimab (GSK/Vir)
- bamlanivimab + etesevimab (Lilly)
- casirivimab + imdevimab (RGN)

tocilizumab

dexamethasone

baricitinib

**Not currently authorized for use anywhere in the U.S. due to the prevalence of Omicron.

Figure 1. COVID-19 Vaccination Schedule*

Vaccine	0 month	1 month	2 month	3 month	4 month	5 month	6 month	7 month
Pfizer- BioNTech (ages 5–11 years)	1 st dose	2nd dose (3 weeks after 1 st dose						
Pfizer- BioNTech (ages 12 years and older)	1 st dose	2 nd dose† (3-8 weeks after 1 st dose)					s ter dose‡ east 5 months after 2 nd do	ose)
Moderna (ages 18 years and older)	1 st dose	2 nd dose† (4-8 weeks after 1 st dos	se)				Booster dose‡ (at least 5 months after	2 nd dose)
Janssen (ages 18 years and older)	1 st dose		Booster dose‡ (at least 2 months after 1st dose)					

Note: Timeline is approximate. Intervals of 3 months or fewer are converted into weeks per the formula "1 month = 4 weeks". Intervals of 4 months or more are converted into calendar months.

^{*} See <u>Guidance for COVID-19 vaccination for people who are moderately or severely immunocompromised</u> for schedule for people who are moderately or severely immunocompromised.

[†] An 8-week interval may be optimal for some people ages 12 years and older, especially for males ages 12 to 39 years. A shorter interval (3 weeks for Pfizer-BioNTech; 4 weeks for Moderna) between the first and second doses remains the recommended interval for: people who are moderately or severely immunocompromised; adults ages 65 years and older; and others who need rapid protection due to increased concern about community transmission or risk of severe disease.

[‡] An mRNA COVID-19 vaccine is preferred over the Janssen COVID-19 Vaccine for booster vaccination of people ages 18 years and older. For people ages 12–17 years, only Pfizer-BioNTech can be used. People ages 5–11 years should not receive a booster dose.

Figure 2. COVID-19 Vaccination Schedule for People Who Are Moderately or Severely Immunocompromised

Vaccine	2 0 month 1 month		h	2 month	3 month	4 month	5 month	
Pfizer- BioNTech (ages 5–11 years)	1 st dose	2 nd dose (3 weeks after 1 st dose)	3 rd dose least 4 v after 2 nd	weeks				
Pfizer- BioNTech (ages 12 years and older)	1 st dose	2nd dose (3 weeks after 1 st dose)	3 rd dose least 4 v after 2 nd	weeks		(at l mo	ester dose* east 3 nths after lose)	
Moderna (ages 18 years and older)	1 st dose	2 nd dose (4 weeks 1 st dose)	after	3 rd dose (at least 4 weeks after 2 nd dose)			Booster dose* (at least 3 months after 3 rd dose)	
Janssen (ages 18 years and older)	1 st dose	2 nd (addition dose [†] usi an mRNA COVID-19 vaccine (aleast 4 we after 1 st d	ing A 9 (at eeks		Booster dose* (at least 2 months after additional dose)			

Note: Timeline is approximate. Intervals of 3 months or fewer are converted into weeks per the formula "1 month = 4 weeks". Intervals of 4 months or more are converted into calendar months.

^{*} An mRNA COVID-19 vaccine is preferred over the Janssen COVID-19 Vaccine for booster vaccination of people ages 18 years and older. For people ages 12–17 years, only Pfizer-BioNTech can be used. People ages 5–11 years should not receive a booster dose.

[†] Only Pfizer-BioNTech or Moderna COVID-19 Vaccine should be used. See Appendix B for more information on vaccinating people who are moderately or severely immunocompromised and who received Janssen COVID-19 Vaccine for the primary series.

Who Is Moderately or Severely Immunocompromised?

People are considered moderately or severely immunocompromised if they have:

- Been receiving active cancer treatment for tumors or cancers of the blood
- Received an organ transplant and are taking medicine to suppress the immune system
- Received a stem cell transplant within the last 2 years or are taking medicine to suppress the immune system
- Moderate or severe primary immunodeficiency (such as DiGeorge syndrome, Wiskott-Aldrich syndrome)
- Advanced or untreated HIV infection
- Active treatment with high-dose corticosteroids or other drugs that may suppress their immune response

EVUSHELDTM (tixagevimab and cilgavimab) – AstraZeneca *Monoclonal Antibody for IM Injection*



EVUSHELD Product Information https://www.evusheld.com

EVUSHELDTM (tixagevimab and cilgavimab) Authorization

EVUSHELDTM (tixagevimab and cilgavimab) is indicated for PrEP of COVID-19 in adults and pediatric (12 years of age and older, weighing at least 40 kg):

Who are not currently infected with SARS-CoV-2 and who have not had a known recent exposure to an individual infected with SARS-CoV-2, **AND**

- Who have moderate to severe immune compromise due to a medical condition or receipt of immunosuppressive medications or treatments and may not mount an adequate immune response to COVID-19 vaccination, OR
- For whom vaccination with any available COVID-19 vaccine, according to the approved or authorized schedule, is not recommended due to a history of severe adverse reaction (e.g., severe allergic reaction) to a COVID-19 vaccine(s) and/or COVID-19 vaccine component(s).

Fact Sheet for Health Care Providers Emergency Use Authorization for Evusheld (tixagevimab co-packaged with cilgavimab (https://www.fda.gov/media/154701/download)

Evusheld (tixagevimab and cilgavimab)

Dosage and Administration

- 300 mg of tixagevimab and 300 mg of cilgavimab administered as two separate consecutive intramuscular injections.
 - Preferably one in each of the gluteal muscles, one after the other.

Contraindications and Precautions

- History of severe hypersensitivity reactions, including anaphylaxis, to any component of Evusheld.
- Administer with caution to people with any coagulation disorder and at high risk for cardiovascular events.

<u>Fact Sheet for Healthcare Providers: Emergency Use Authorization For Evusheld (tixagevimab co-packaged with cilgavimab)</u> (https://www.fda.gov/media/154701/download)

Evusheld (tixagevimab and cilgavimab): Limitations of Authorized Use

- Evusheld is not authorized for use:
 - For treatment of COVID-19.
 - For post-exposure prophylaxis of COVID-19 in individuals who have been exposed to someone infected with SARS-CoV-2.
- PrEP with Evusheld is not a substitute for vaccination in individuals for whom COVID-19 vaccination is recommended. Individuals for whom COVID-19 vaccination is recommended, including individuals with moderate to severe immune compromise¹ who may derive benefit from COVID-19 vaccination, should receive COVID-19 vaccination.
- In individuals who have received a COVID-19 vaccine, Evusheld should be administered at least 2 weeks after vaccination.
- Evusheld may only be prescribed by a healthcare provider licensed under state law to
 prescribe drugs for an individually identified patient and who has the education and training to
 make the clinical assessment necessary for appropriate use of Evusheld.

¹CDC Clinical Considerations for COVID-19 Vaccines (https://www.cdc.gov/vaccines/covid-19/clinical-considerations/covid-19-vaccines-us.html)

EVUSHELDTM Product Information

FDA Fact Sheets

- > EVUSHELD provider fact sheet: https://www.fda.gov/media/154701/download
- > EVUSHELD patient fact sheet: https://www.fda.gov/media/154702/download
- > EVUSHELD patient fact sheet (Spanish): https://www.fda.gov/media/155196/download

Manufacturer's Resources:

- ➤ Website for Healthcare Providers: https://www.evusheld.com/hcp
- ➤ <u>Website for Patients</u>: <u>https://www.evusheld.com/patient</u>

Additional Resources:

- ➤ NIH COVID-19 Treatment Guidelines Panel's Statement on Therapies for High-Risk, Nonhospitalized Patients https://www.covid19treatmentguidelines.nih.gov/management/clinical-management/nonhospitalized-adults---therapeutic-management/
- > COVID-19 Therapeutics Locator: https://covid-19-therapeutics-locator-dhhs.hub.arcgis.com/
- > FDA MedWatch: https://www.fda.gov/medwatch/report.htm
- ➤ <u>Safety Reporting</u>: https://contactazmedical.astrazeneca.com/
- ➤ Module 4 Monoclonal Antibody Administration

CMS and HRSA Resources

CMS Resources:

- COVID-19 Monoclonal Antibodies and Outpatient Administration of Veklury (remdesivir): (https://www.cms.gov/medicare/covid-19/monoclonal-antibody-covid-19-infusion)
- Permissible Flexibilities Related to Oral Antiviral Drugs for Treatment of COVID-19 that May Receive
 U.S. Food and Drug Administration Emergency Use Authorization and are Procured by the U.S.
 Government (https://www.cms.gov/files/document/hpms-memo-oral-antiviral-guidance.pdf)
- Oral Antiviral NDC Numbers:
 - Paxlovid: 0069-1085-06
 - Molnupiravir: 0006-5055-06, 0006-5055-07

Continue to check CMS website for most up to date information: www.CMS.gov

HRSA Resources:

- COVID-19 Claims Reimbursement for the Uninsured: (https://www.hrsa.gov/CovidUninsuredClaim)
- FAQ: (https://coviduninsuredclaim.linkhealth.com/frequently-asked-questions.html)

Eligibility & Prioritization for COVID-19 PrEP

Maine Category 1

- Lung Transplant Recipient (any time frame)
- Small Bowel Recipient (any time frame)
- · Receipt of immunosuppressive medication within past 12 months (any condition, oncology or non-oncology):
 - Anti-thymocyte globulin (ATG)
 - Alemtuzumab
 - Anti-B-Cell Therapy: Rituximab, Ocrelizumab, Ofatumumab
- Patients with hematologic malignancies who are on active therapy
- Allogeneic Stem Cell Transplant, within 12 months of Transplant
- Autologous Stem Cell Transplant, within 6 months of Transplant
- Recipient of more than one active Transplant, different Organs (any time frame)
- · Receipt of anti-CD19 or anti-BCMA (CAR)-T-Cell Immunotherapy, within six months of treatment
- Primary or Secondary T-Cell Immunodeficiency, including Severe Combined Immunodeficiency:
 - Agammaglobulinemia (XLA/ARAG)
 - Common Variable Immunodeficiency (CVID) and similar phenotype with T-cell dysfunction
 - Defects of Innate Immunity with predominant susceptibility to Viral Infections (e.g., WHIM Syndrome)
- Additional pediatric conditions (age 12–17 years):
 - Combined immune deficiencies with or without immune dysregulation (e.g., APDS, STAT3 GOF, ALPS)
 - Primary immune regulatory disorders with or without immune deficiency (e.g., APECED, XIAP)
 - High-risk or relapsed acute lymphoblastic leukemia/lymphoblastic lymphoma on intensive therapy (not maintenance therapy)

Maine Category 2

- Allogeneic stem cell transplant, more than 12 months since transplant
- Autologous stem cell transplant, more than 6 months since transplant
- Multiple myeloma, on maintenance therapy
- Any solid tumor, on active myelosuppressive chemotherapy
- Any solid organ transplant recipient not otherwise eligible in Category
- Other chronic leukemias, on treatment
- Patients in lower categories with more than one qualifying condition

Maine Category 3

- Active treatment with high-dose corticosteroids (i.e., more than 20 mg prednisone or equivalent per day when administered for two weeks or longer)
- Active treatment with other biologic agents that are immunosuppressive or immunomodulatory, not otherwise listed in Categories 1–2
- · Advanced or untreated HIV infection:
 - HIV with CD4 less than 200/mm³ (if aged less than 14 years, CD4% less than 15%)
 - AIDS-defining illness

Maine Category 4

 Persons for whom vaccination with any available COVID-19 vaccine, according to the approved or authorized schedule, is not recommended, due to a history of severe adverse reaction, e.g., severe allergic reaction to a COVID-19 vaccine(s) and/or COVID-19 vaccine component(s).

Evusheld access in the State of Maine

Patients who currently qualify for treatment, or who have questions about eligibility or whether to get this drug, should contact their primary care provider. Patients who do not have a primary care provider should contact a healthcare facility for further information on how to access EVUSHELD at that healthcare facility. Maine CDC is NOT able to coordinate treatment for individual patients.

Healthcare providers can contact any of the healthcare systems or facilities in Maine that have Evusheld to refer their patient(s) for Evusheld treatment.

Healthcare systems/healthcare facilities that would like to start getting their own EVUSHELD supply may contact Kristen McAuley (kristen.m.mcauley@maine.gov) at Maine CDC to request details on how to get an allocation.

Healthcare System/Facility	Location(s)
Central Maine Medical Center	Lewiston
Eastern Maine/Northern Light Hospital	Bangor
MaineGeneral	Augusta
MaineHealth/Maine Medical Center	Portland
N.E. Cancer Specialists	Multiple
Redington Fairview Hospital	Skowhegan
York Hospital	York

For more information, go to *Maine CDC: COVID-19 Pre-Exposure Prophylaxis: Information for Providers* (https://www.maine.gov/dhhs/mecdc/infectious-disease/epi/airborne/coronavirus/prophylaxis.shtml)

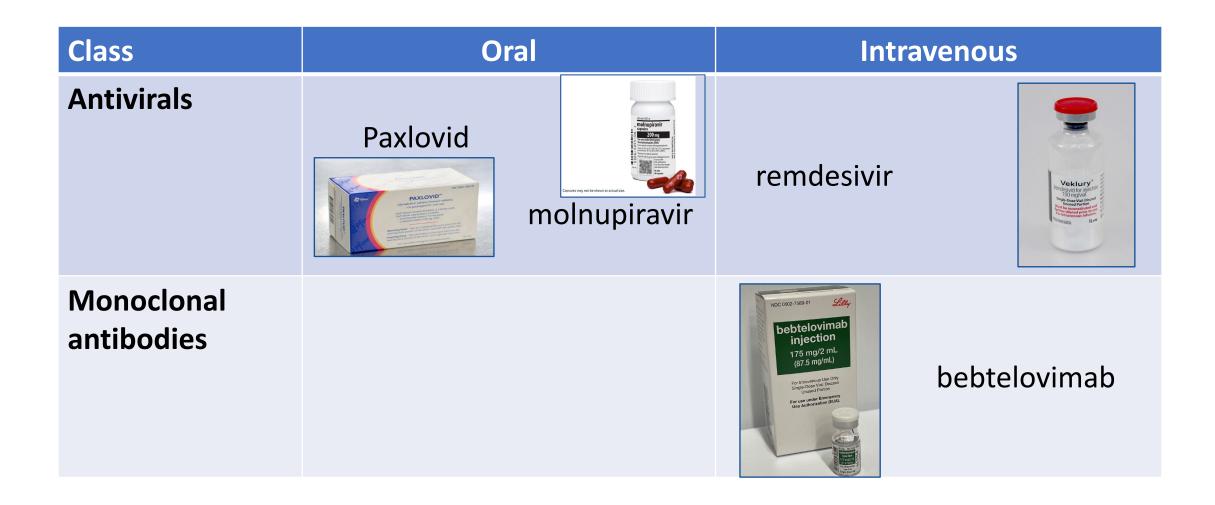
Hemostatic Considerations for Evusheld

EVUSHELD is a new combination monoclonal antibody administered as two concomitant IM injections in the gluteal muscle. Maine is experiencing extreme scarcity of blood products to support patients should they have a bleed or hematoma from a deep muscle injection. Thus, strong considerations and judicious clinical discretion is advised for those patients who may be at risk for bleeding from a deep muscle injection.

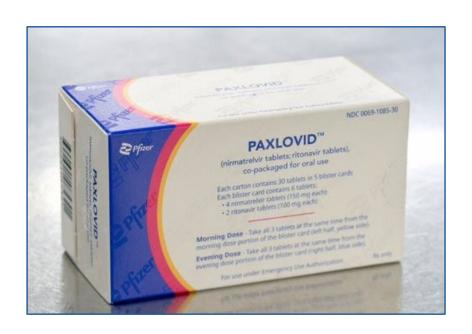
- Contraindications for administration in patients who otherwise meet the eligibility per EUA criteria include:
 - Clinically significant heritable bleeding disorder or bleeding diathesis despite a normal platelet count.
 - Platelet count <20,000/uL.
 - On anticoagulation with warfarin, direct acting oral anticoagulation (DOACs) drug(s), or heparin agents, unless they can be safely held in advance.
 - Dual antiplatelet therapy for stent or other considerations.
- As experience with this drug expands and as stress on the blood supply lessens, these parameters will be re-evaluated.

Oral and IV outpatient treatment for COVID-19

Overview of oral and IV therapies



Paxlovid[™] (nirmatrelvir and ritonavir) – Pfizer Oral Antiviral



<u>Paxlovid Product Information</u> <u>https://www.pfizer.com/products/product-detail/paxlovidtm</u>

Paxlovid Authorization

- FDA has issued an EUA for the treatment of mild to moderate COVID-19 in adults (12 years of age and older weighing more than 40 kg) who are at high risk for progression to severe COVID-19, including hospitalization and death, as soon as possible after diagnosis of COVID-19 and within 5 days of symptom onset.
- Paxlovid includes: nirmatrelvir (a SARS-CoV-2 main proteases inhibitor) and ritonavir (a CYP34A inhibitor).
- Limitations of authorized use:
 - ➤ Not authorized for initiation of treatment in patients requiring hospitalization due to severe or critical COVID-19.
 - ➤ Not authorized for PrEP or PEP for prevention of COVID-19.
 - Not authorized for use longer than 5 consecutive days.
- Paxlovid may only be prescribed for an individual patient by physicians, advanced practice registered nurses, and physician assistants that are licensed or authorized under state law to prescribe drugs in the therapeutic class to which Paxlovid belongs (i.e., anti-infectives).

Fact Sheet for Healthcare Providers Emergency Use Authorization of Paxlovid (https://www.fda.gov/media/155050/download)

Paxlovid

Dosage and Administration

- eGFR 60 or greater: 300 mg nirmatrelvir (two 150 mg tablets) with 100 mg ritonavir (one 100 mg tablet) taken together twice daily for 5 days.
- eGFR ≥30 mL/min to <60 mL/min: 150 mg nirmatrelvir (one 150 mg tablet) with 100 mg ritonavir (one 100 mg tablet) taken together twice daily for 5 days.
- eGFR <30 mL/min: Currently not recommended

Contraindications and Precautions

- History of clinically significant hypersensitivity reactions to the active ingredients or any other components.
- Co-administration with drugs highly dependent on CYP3A for clearance may result in life-threatening reactions¹.
- Co-administration with potent CYP3A inducers may result in reduced nirmatrelvir plasma concentrations and potential loss of virologic response.
- The concomitant use of Paxlovid and certain other drugs may result in potentially significant drug interactions.
- Hepatic transaminase elevations, clinical hepatitis, and jaundice have occurred in patients receiving ritonavir.
- Paxlovid use may lead to a risk of HIV-1 developing resistance to HIV protease inhibitors in individuals with uncontrolled or undiagnosed HIV-1 infection.

¹Liverpool Covid-19 interaction checker https://covid19-druginteractions.org /

Fact Sheet for Healthcare Providers: Emergency Use Authorization For Paxlovid.

(https://www.fda.gov/media/155050/download)

Paxlovid™ Provider Checklist

	Positive SARS-CoV-2 test
	Age ≥12 years
U '	Weight ≥40 kg
	High-risk criteria met
	Symptoms consistent with mild-moderate COVID-19
	Symptom onset with 5 days *
	Not hospitalized due to COVID-19
	If clinically indicated, assess patient renal function
•	OOI IT = 00 IIIE/IIIIII, otalidala dooliig
•	eGFR ≥30 to <60 mL/min, dose modification
-	eGFR <30 mL/min, not recommended
	If clinically indicated, assess patient hepatic function
•	Child-Pugh Class C, contraindicated
	Assess patient's home medication list for drug-drug interactions
•	See next slide for more detail
Plea	scriber is encouraged to include a note to the pharmacist in the prescription stating: ase fill prescription by [insert date] This prescription fill by date is within 5 days from symptom onse
and	complies with the patient eligibility criteria under the EUA.

Paxlovid[™] Contraindications*

Hypersensitivity Reactions

Drugs highly dependent on CYP3A4 for clearance and for which elevated concentrations are associated with severe/lifethreatening reactions*

Drugs that are potent CYP3A inducers where significantly reduced nirmatrelvir or ritonavir concentrations may be associated with loss of virologic response or resistance*

- History of clinically significant hypersensitivity reactions (e.g., TEN, SJS) to its active ingredients (nirmatrelvir or ritonavir) or any other components of the product
- Alpha1-adrenoreceptor antagonists: alfuzosin
- Analgesics: pethidone, piroxicam, propoxyphene
- Antianginal: ranolazine
- Antiarrhythmic: amiodarone, dronedarone, flecainide, propafenone, quinidine
- Anti-gout: colchicine
- Antipsychotics: lurasidone, pimozide, clozapine
- Ergot derivatives: dihydroergotamine, ergotamine, methylergonovine
- HMG-CoA reductase inhibitors: lovastatin, simvastatin
- PDE5 inhibitor: sildenafil (Revatio) when used for PAH
- Sedative/hypnotics: triazolam, oral midazolam
- Anticancer drugs: apalutamide
- Anticonvulsant:: carbamazepaine, phenobarbital., phenytoin
- Antimycobacterials: rifampin
- Herbal product: St John's Wort (hypericum perforatum)

*NOT COMPLETE LIST OF ALL DDI's. ALWAYS USE <u>CLINICAL TOOLS/DDI CHECKER</u> AND USE CLINICAL JUDGMENT https://covid19-druginteractions.org/view-all-interactions
For additional information see: https://covid19-druginteractions.org/view-all-interactions
(https://www.covid19treatmentguidelines.nih.gov/therapies/statement-on-paxlovid-drug-drug-interactions/)

Paxlovid provider fact sheet: https://www.fda.gov/media/155050/download

Paxlovid™ Renal Adjustment Instructions for Pharmacists

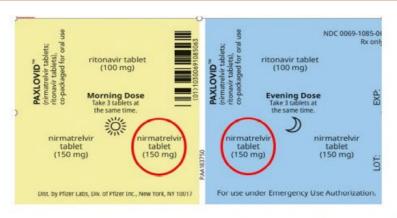


Figure 1: Remove the nirmatrelvir tablets circled in red from the blister card

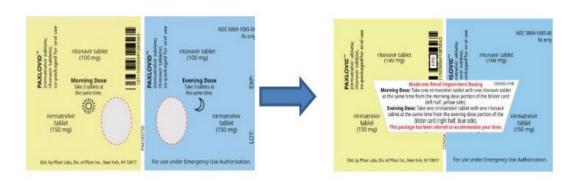


Figure 2: Placement of sticker over empty blister cavities and pre-printed dosing instruction after removal of nirmatrelyir tablets

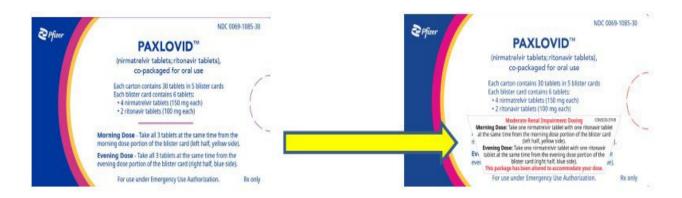


Figure 3: Placement of sticker over pre-printed dosing regimen on carton

Pharmacist Instruction Sheet: https://www.covid19oralrx-hcp.com/files/Clean EUA-105-mitigation-plan-for-moderate-renal-impairment-01-11-22.pdf

Paxlovid™ Product Information

FDA Fact Sheets

- Paxlovid provider fact sheet: https://www.fda.gov/media/155050/download
- Paxlovid patient fact sheet: https://www.fda.gov/media/155051/download
- Paxlovid patient fact sheet (Spanish): https://www.fda.gov/media/155075/download

Manufacturer's Resources:

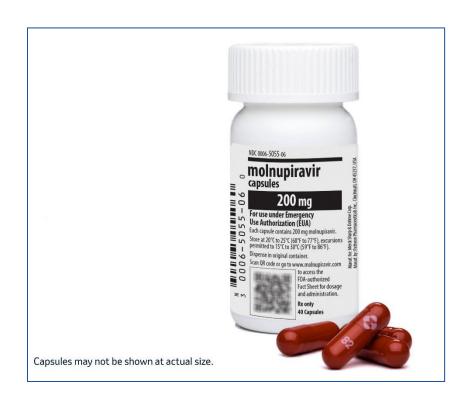
- ➤ Website for Healthcare Providers: https://www.covid19oralrx-hcp.com/
- Website for Patients: https://www.covid19oralrx-patient.com/
- Pharmacist Instruction Sheet: https://www.covid19oralrx-hcp.com/files/Clean_EUA-105-mitigation-plan-for-moderate-renal-impairment-01-11-22.pdf

Additional Resources:

- ➤ NIH COVID-19 Treatment Guidelines Panel's Statement on Therapies for High-Risk, Nonhospitalized Patients https://www.covid19treatmentguidelines.nih.gov/management/clinical-management/nonhospitalized-adults--therapeutic-management/
- COVID-19 Therapeutics Locator: https://covid-19-therapeutics-locator-dhhs.hub.arcgis.com/
- > FDA MedWatch: https://www.fda.gov/medwatch/report.htm
- Safety Reporting: http://www.pfizersafetyreporting.com/
- ➤ Module 5 Oral Therapeutics Administration

Paxlovid Drug-Drug Interaction Tool

Molnupiravir – Merck Oral Antiviral



Molnupiravir Product Information https://www.molnupiravir-us.com/

Molnupiravir Authorization

- Molnupiravir has been authorized by FDA under an EUA, for the treatment of mild-to-moderate COVID-19 in adults who are at high-risk for progression to severe COVID-19, including hospitalization or death, and for whom alternative COVID-19 treatment options authorized by FDA are not accessible or clinically appropriate.
- Not authorized for:
 - Patients less than 18 years of age
 - > Initiation of treatment in patients requiring hospitalization due to COVID-19
 - Use longer than 5 consecutive days
- Molnupiravir may only be prescribed for an individual patient by physicians, advanced practice registered nurses, and physician assistants that are licensed or authorized under state law to prescribe drugs in the therapeutic class to which molnupiravir belongs (i.e., anti-infectives).

Fact Sheet for Health Care Providers Emergency Use Authorization of Molnupiravir (https://www.fda.gov/media/155054/download)

Molnupiravir

Dosage and Administration

- 800 mg (four 200 mg capsules) taken orally every 12 hours for 5 days, with or without food.
- Not authorized for use for longer than 5 consecutive days.

Contraindications and Precautions

- No contraindications have been identified based on the limited available data on the emergency use of molnupiravir authorized under this EUA.
- Not recommended for use during pregnancy and not authorized for use in patients under 18 years of age.

For more information, see <u>Fact Sheet for Healthcare Providers: Emergency Use Authorization For Molnupiravir</u>.

https://www.fda.gov/media/155054/download

Molnupiravir Provider Checklist

	Positive SARS-CoV-2 test
	Age ≥18 years
	Alternate COVID-19 treatment options authorized by FDA are not accessible or clinically appropriate
	High-risk criteria met
	Symptoms consistent with mild-moderate COVID-19
	Symptom onset within 5 days*
	Not hospitalized due to COVID-19
	Assessment pregnancy and breastfeeding status (if applicable)
	 Provide appropriate counseling Females of childbearing potential treated should use a reliable method of contraception correctly and consistently, as applicable, for the <u>duration of treatment and for 4 days after the last dose of molnupiravir</u>. Breastfeeding is not recommended for the <u>duration of treatment and for 4 days after the last dose of molnupiravir</u>. Males of reproductive potential treated, if sexually active with females of childbearing potential, should use a reliable method of contraception correctly and consistently <u>during treatment and for at least 3 months after the last dose</u>.
*Pr	escriber is encouraged to include a note to the pharmacist in the prescription stating:
	ease fill prescription by <u>[insert date]</u> . This prescription fill by date is within 5 days from symptom onset d complies with the patient eligibility criteria under the EUA.

Molnupiravir Prescriber Requirements

All Patients

- 1. Provide electronic or hard copy of patient fact sheet.
- 2. Document* that patient has received an electronic or hard copy of the patient fact sheet.
- Review the information contained within the patient fact sheet with the patient and counsel patient on the known and potential benefits and risks of molnupiravir.
- 4. Advise patients on need for contraception use as appropriate:
 - Females of childbearing potential treated should use a reliable method of contraception correctly and consistently, as applicable, for the <u>duration of treatment and for 4 days after the last dose of</u> <u>molnupiravir</u>.
 - Breastfeeding is not recommended for the <u>duration of treatment and for **4 days** after the last dose of molnupiravir</u>.
 - Males of reproductive potential treated, if sexually active with females of childbearing potential, should use a reliable method of contraception correctly and consistently <u>during treatment and for at</u> <u>least 3 months after the last dose</u>.
- 5. The prescribing healthcare provider and/or the provider's designee must report all medication errors and serious adverse events potentially related to molnupiravir within 7 calendar days from the healthcare provider's awareness of the event.

^{*}How and where documentation occurs is at the discretion of the prescribing healthcare provider and their clinical site.

Molnupiravir Product Information

FDA Fact Sheets

- > molnupiravir provider fact sheet: https://www.fda.gov/media/155054/download
- > molnupiravir patient fact sheet: https://www.fda.gov/media/155055/download
- ➤ molnupiravir patient fact sheet (Spanish): https://www.fda.gov/media/155115/download

Manufacturer's Resources:

- ➤ Website for Healthcare Providers: https://www.molnupiravir-us.com/hcp/
- ➤ Website for Patients: https://www.molnupiravir-us.com/patients/
- Report a Pregnancy Exposure: https://pregnancyreporting.msd.com/

• Additional Resources:

- ➤ NIH COVID-19 Treatment Guidelines Panel's Statement on Therapies for High-Risk, Nonhospitalized Patients https://www.covid19treatmentguidelines.nih.gov/management/clinical-management/nonhospitalized-adults--therapeutic-management/
- COVID-19 Therapeutics Locator: https://covid-19-therapeutics-locator-dhhs.hub.arcgis.com/
- ➤ FDA MedWatch: https://www.fda.gov/medwatch/report.htm
- > Safety Reporting Email: dpoc.usa@msd.com
- ➤ Module 5 Oral Therapeutics Administration

Bebtelovimab – Eli Lilly Monoclonal Antibody for IV Injection (IV Push)



<u>bebtelovimab Product Information</u>
http://www.lillyantibody.com/bebtelovimab

Bebtelovimab Authorization

- FDA has issued an EUA to permit the emergency use of bebtelovimab for the treatment of mild to moderate COVID-19 in adults and pediatric patients (12 years of age and older weighing at least 40 kg):
 - With positive results of direct SARS-CoV-2 viral testing, AND
 - Who are at high risk for progression to severe COVID-19, including hospitalization or death, AND
 - o For whom alternative COVID-19 treatment options are not clinically appropriate or accessible
- Bebtelovimab is not authorized for use in patients:
 - Who are hospitalized due to COVID-19, OR
 - Who require oxygen therapy due to COVID-19, OR
 - Who require an increase in baseline oxygen flow rate due to COVID-19 (in those on chronic oxygen therapy due to underlying non-COVID-19 related comorbidity).

For more information see Fact Sheet for Healthcare Providers: Emergency Use Authorization For bebtelovimab.

https://www.fda.gov/media/156152/download

Bebtelovimab Dosage and Administration

- For adults and pediatric patients (12 years of age and older weighing at least 40 kg): 175 mg administered as a single IV injection (i.e., IV push) over at least 30 seconds.
- Bebtelovimab injection should be prepared by a qualified healthcare professional using aseptic technique.
- Bebtelovimab should be given as soon as possible after positive results of direct SARS-CoV-2 viral testing, and within 7 days of symptom onset.

For more information see Fact Sheet for Healthcare Providers: Emergency Use Authorization For bebtelovimab.

(https://www.fda.gov/media/156152/download)

Bebtelovimab Preparation

- Remove bebtelovimab vial from refrigerated storage and allow to equilibrate to room temperature for approximately 20 minutes before preparation.
 - Do not expose to direct heat. Do not shake vial. Inspect the vial.
- Withdraw 2 mL from the vial into the disposable syringe.
- Discard any product remaining in the vial.
- This product is preservative-free and therefore, should be administered immediately.
 - If immediate administration is not possible, store the syringe for up to 24 hours at refrigerated temperature (2°C to 8°C [36°F to 46°F]) and up to 7 hours at room temperature (20°C to 25°C [68°F to 77°F]).
 - If refrigerated, allow the prepared syringe to equilibrate to room temperature for approximately 20 minutes prior to administration
- Attach the syringe extension set.
- Prime the extension set.
- Administer the entire contents of the syringe via IV injection over at least 30 seconds.
- After the entire contents of the syringe have been administered, flush the extension set with 0.9% Sodium Chloride to ensure delivery of the required dose.

Bebtelovimab Product Information

FDA Fact Sheets

- ➤ <u>bebtelovimab provider fact sheet</u>: https://www.fda.gov/media/156152/download
- bebtelovimab patient fact sheet: https://www.fda.gov/media/156153/download
- bebtelovimab patient fact sheet (Spanish): https://www.fda.gov/media/156155/download

Manufacturer's Resources:

- ➤ Website for Healthcare Providers: http://www.lillyantibody.com/bebtelovimab
- ➤ <u>Website for Patients</u>: <u>http://www.lillyantibody.com/bebtelovimab</u>

• Additional Resources:

- ➤ NIH COVID-19 Treatment Guidelines Panel's Statement on Therapies for High-Risk, Nonhospitalized Patients

 https://www.covid19treatmentguidelines.nih.gov/management/clinical-management/nonhospitalized-adults--therapeuticmanagement/
- https://covid-19-therapeutics-locator-dhhs.hub.arcgis.com/
- > FDA MedWatch: https://www.fda.gov/medwatch/report.htm
- > Safety Reporting Email: mailindata gsmtindy@lilly.com
- ➤ Module 4 Monoclonal Antibody Administration

Veklury® (remdesivir) – Gilead **Antiviral for IV Infusion**



<u>Veklury Product Information</u> <u>https://www.vekluryhcp.com/</u>

Veklury (remdesivir) – Outpatient Use

- FDA approved expanded use of Veklury (remdesivir) to certain non-hospitalized adults and pediatric patients for treatment of mild to moderate COVID-19 disease (January 21, 2022), including:
 - Adults and pediatric patients (12 years of age and older who weigh at least 40 kg) with positive results of direct SARS-CoV-2 viral testing, AND
 - ➤ Who are not hospitalized and have mild to moderate COVID-19 and are at high risk for progression to severe COVID-19, including hospitalization or death.
- FDA also revised EUA to authorize Veklury (remdesivir) for treatment of certain non-hospitalized pediatric patients:
 - Weighing 3.5 kg to less than 40 kg OR
 - Pediatric patients less than 12 years of age weighting at least 3.5 kg, with positive results of direct SARS-CoV-2 viral testing, AND
 - ➤ Who are not hospitalized and have mild to moderate COVID-19 and are at high risk for progression to severe COVID-19, including hospitalization or death.
- The treatment course of Veklury (remdesivir) should be initiated as soon as possible after diagnosis of symptomatic COVID-19 has been made and within 7 days of symptom onset. The recommended total duration of treatment for non-hospitalized patients is 3 days.

<u>Veklury (remdesivir) Prescribing Information</u>: https://www.gilead.com/-/media/files/pdfs/medicines/COVID-19/veklury/veklury_pi.pdf Remdesivir Provider Fact Sheet: https://www.fda.gov/media/137566/download

Veklury (remdesivir) (continued)

Contraindications and Precautions

- History of clinically significant hypersensitivity reactions to Veklury (remdesivir) or any components of the product.
- Hypersensitivity including infusion-related and anaphylactic reactions.
- Increased risk of transaminase elevations.
- Risk of reduced antiviral activity when co-administered with chloroquine phosphate or hydroxychloroquine sulfate.

Veklury (remdesivir) (continued page 2)

Dosage and Administration for Adults and Pediatric Patients (≥12 years of age and weighing at least 40 kg):

- **Dose:** 200 mg on Day 1, followed by once-daily maintenance doses of 100 mg on Days 2 and 3.
 - Preparation:
 - For injection: **100 mg** of Veklury (remdesivir) as a lyophilized powder, in a single-dose vial.
 - Reconstitute with 19 mL sterile water for injection and dilute in a 100 mL or 250 mL infusion bag of 0.9% sodium chloride.
 - Injection: 100 mg/20 mL (5 mg/mL) Veklury (remdesivir), in a single-dose vial.
 - Must be diluted in a 250 mL infusion bag of 0.9% sodium chloride.
- Administer over 30 to 120 minutes.
- Monitor patients during infusion and clinically observe for 1 hour after infusion is complete for signs and symptoms of hypersensitivity.

For more information, see the <u>Fact Sheet for Healthcare Providers</u>.

Veklury (remdesivir) (continued page 3)

Pediatric Dosing and Administration:

Body weight	Recommended dosage form	Loading dose (on Day 1)	Maintenance dose (from Day 2)
3.5 kg to less than 40 kg	VEKLURY for injection, lyophilized powder <u>Only</u>	5 mg/kg	2.5 mg/kg
40 kg and higher		200 mg	100 mg

- Lyophilized powder: 100 mg of Veklury (remdesivir) reconstituted with 19 mL of Sterile Water for injection.
- Further dilute to a concentration of 1.25 mg/mL using 0.9% sodium chloride.
- Small 0.9% sodium chloride infusion bags (e.g., 25, 50, or 100 mL) or an appropriate sixed syringe should be used for pediatric dosing.

For more information, see the <u>Fact Sheet for Healthcare Providers</u>.

Veklury (remdesivir) (continued page 4) Recommended Rate of Infusion-Diluted Veklury for Injection Lyophilized Powder for Pediatric Patients Weighing 3.5 kg to Less than 40 kg

Infusion volume	Infusion time	Rate of infusion ^a
	30 min	3.33 mL/min
100 mL	60 min	1.67 mL/min
	120 min	0.83 mL/min
50 mL	30 min	1.67 mL/min
	60 min	0.83 mL/min
	120 min	0.42 mL/min
	30 min	0.83 mL/min
25 mL	60 min	0.42 mL/min
	120 min	0.21 mL/min
7 mL	30 min	0.23 mL/min
	60 min	0.12 mL/min
	120 min	0.06 mL/min

a. Note: Rate of infusion may be adjusted based on total volume to be infused.

Veklury® (remdesivir) Product Information

Prescribing Information & FDA Fact Sheets

- Veklury (remdesivir) Prescribing Information: https://www.gilead.com/-/media/files/pdfs/medicines/covid-19/veklury-pi.pdf
- remdesivir provider fact sheet: https://www.fda.gov/media/137566/download
- remdesivir patient fact sheet: https://www.fda.gov/media/137565/download
- remdesivir patient fact sheet (Spanish): https://www.fda.gov/media/139460/download

Manufacturer's Resources:

- Website for Healthcare Providers: https://www.vekluryhcp.com/
- Website for Patients: https://www.veklury.com/

Additional Resources:

- ► NIH COVID-19 Treatment Guidelines Panel's Statement on Therapies for High-Risk, Nonhospitalized Patients https://www.covid19treatmentguidelines.nih.gov/management/clinical-management/nonhospitalized-adults--therapeutic-management/
- > FDA MedWatch: https://www.fda.gov/medwatch/report.htm
- > Safety Reporting Email: Safety fc@gilead.com

MaineHealth: remdesivir monitoring

Parameters measured under the definition 'vital signs' (VS): Temp, HR, RR, blood pressure, O2 sat

Dose 1:

- VS before infusion
- VS at 15 mins (halfway through 30 min infusion)
- VS at 30 mins (end of infusion)
- VS after 15 min monitoring (prior to discharge)

Total of 4 sets

Dose 2 & 3:

- VS before infusion
- VS at 15 mins (halfway through 30 min infusion)
- VS at 30 mins (end of infusion, this serves as the prior to discharge VS as well)

Total of 3 sets

Remdesivir patient assistance program

- Gilead program that covers assistance for commercially-insured patients
 - Patients who are not insured can get relieve via the Cares Act and Provider Relief Fund
- The amount of financial assistance depends on the patient's health insurance plan, deductible, and level of need
 - There is a copay coupon for those with commercial insurance, depending on the type of insurance
- Resources for HCPs: https://www.gileadadvancingaccess.com/hcp/resources
 - sample letter of medical necessity, sample letter of appeal and prior authorization checklist)
- Enrollment form: https://services.gileadhiv.com/content/pdf/gilead-enrollment-form.pdf
 - Can be completed online and then saved (you can download the application)

CMS Updates: Coding for Bebtelovimab and Remdesivir

CMS created new codes, effective Feb. 11, 2022

Q0222:

Long descriptor: Injection, bebtelovimab, 175 mg

Short descriptor: Bebtelovimab 175

M0222:

Long Descriptor: IV injection, bebtelovimab, includes injection and post administration monitoring Short Descriptor: Bebtelovimab injection

M0223:

Long Descriptor: Intravenous injection, bebtelovimab, includes injection and post administration monitoring in the home or residence; this includes a beneficiary's home that has been made provider-based to the hospital during the covid-19 public health emergency

Short Descriptor: Bebtelovimab injection home

- <u>Updated FAQs Payment/Coding for Veklury (Remdesivir)</u> (begin pg 146/question 30)
- Visit the CMS COVID-19 Monoclonal Antibodies Toolkit for more information

Frequently Asked Questions Related to EUA

- Products under EUA must be administered in accordance with the EUA.
- A signed consent form is not needed to administer products under EUA.
- No clinical data reporting is required beyond established FDA mechanisms for tracking and reporting serious adverse events.

Who to Treat for COVID-19

Eligibility Criteria for TREATMENT of Mild-to-Moderate COVID-19 Infection in High-Risk Patients

Mild to moderate COVID-19 cases early in infection, who are at high risk for progressing to severe COVID-19 and/or hospitalization¹; with following criteria:

- Adult or pediatric patients 12 years of age and older weighing more than 40kg
- Confirmation via positive PCR or antigen test
- Treatment as soon as possible following positive viral test and within 5-7 days* of symptom onset
- Patient symptomatic but not yet progressed to require hospitalization or oxygen therapy (or increase from baseline chronic oxygen therapy)

Monoclonal antibodies (mAbs) and Oral Antivirals (OAVs) given EUA for mild to moderate symptoms of COVID-19 are *not authorized* for use in patients:

- who are hospitalized <u>due to COVID-19</u>, OR
- who require oxygen therapy <u>due to COVID-19</u>, OR
- who require an increase in baseline oxygen flow rate due to COVID-19 in those on chronic oxygen therapy <u>due to underlying non-COVID-19 related comorbidity</u>

1. CDC's <u>Underlying Medical Conditions Associated with Higher Risk for Severe COVID-19: Information for Healthcare Providers</u> (https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical- care/underlyingconditions.html)

*Patient eligibility with respect to time since symptom onset varies across agents. See product fact sheets for product-specific durations.



NIH COVID-19 Treatment Guidelines

- The COVID-19 Treatment Guidelines Panel (the Panel) has recommended several therapeutic agents for the treatment and prevention of SARS-CoV-2 infection in individuals who are at high risk for progression to severe COVID-19.
- These anti-SARS-CoV-2 therapeutics are of greatest benefit for non-hospitalized patients who have risk factors for progression to severe COVID-19. The risks for progression are substantially higher for those who are not vaccinated or who are vaccinated but not expected to mount an adequate immune response to the vaccine.

<u>See the Panel's Interim Statement on Patient Prioritization for Outpatient Anti-SARS-CoV-2</u> <u>Therapies or Preventive Strategies When There Are Logistical or Supply Constraints</u> for more information.

NIH Risk Group Prioritization Criteria

The Panel prioritized the following risk groups for anti-SARS-CoV-2 mAb therapy based on Age, Vaccination status, Immune status, and Clinical risk factors

- For a list of risk factors, see the CDC webpage <u>Underlying Medical Conditions</u>
- Associated with High Risk for Severe COVID-19
- The CDC website <u>COVID-19 Vaccines for Moderately or Severely Immunocompromised</u> <u>People</u> provides a list of moderate and severe immunocompromising conditions.
- If supplies cannot be provided to all moderately to severely immunocompromised individuals because of logistical constraints or supply limitations, the Panel suggests prioritizing their use for those who are least likely to mount an adequate response to COVID-19 vaccination or SARS-CoV-2 infection and who are at risk for severe outcomes.

Who is at risk for severe disease? (for patients)

- Cancer
- Chronic kidney disease
- Chronic liver disease
- Chronic lung diseases
- Cystic Fibrosis
- Dementia or other neurological conditions
- Diabetes (type 1 or type 2)
- Disabilities
- Heart conditions
- HIV infection
- Immunocompromised state (weakened immune system)

- Mental health conditions
- Overweight and obesity
- Physical inactivity
- Pregnancy
- Sickle cell disease or thalassemia
- Smoking, current or former
- Solid organ or blood stem cell transplant
- Stroke or cerebrovascular disease
- Substance use disorders
- Tuberculosis
- Children with medical complexity

Who is at risk for severe disease? (for providers)

Higher risk for severe COVID-19 outcomes

- Cancer
- Cerebrovascular disease
- Chronic kidney disease*
- Chronic lung diseases:

 Interstitial lung disease, Pulmonary embolism,
 Pulmonary hypertension, Bronchiectasis, COPD (chronic obstructive pulmonary disease)
- Chronic liver diseases:
 Cirrhosis, Non-alcoholic fatty liver disease,
 Alcoholic liver disease, Autoimmune hepatitis
- Cystic fibrosis
- Diabetes mellitus, type 1 and type 2*
- Disabilities:
 Attention-Deficit/Hyperactivity Disorder (ADHD):
 Cerebral Palsy, Congenital Malformations (Birth Defects), Limitations with self-care or activities of daily living, Intellectual and Developmental Disabilities, Learning Disabilities, Spinal Cord Injuries, other disabilities [full list on webpage]

- Heart conditions (e.g., heart failure, coronary artery disease, or cardiomyopathies)
- HIV (human immunodeficiency virus)
- Mental health disorders:
 Mood disorders (including depression),
 Schizophrenia spectrum disorders
- Neurologic conditions limited to dementia
- Obesity (BMI ≥30 kg/m²)*
- Primary Immunodeficiencies
- Pregnancy and recent pregnancy
- Physical inactivity
- Smoking, current and former
- Solid organ or hematopoietic cell transplantation
- Tuberculosis
- Use of corticosteroids or other immunosuppressive medications

Suggestive higher risk for severe COVID-19 outcomes

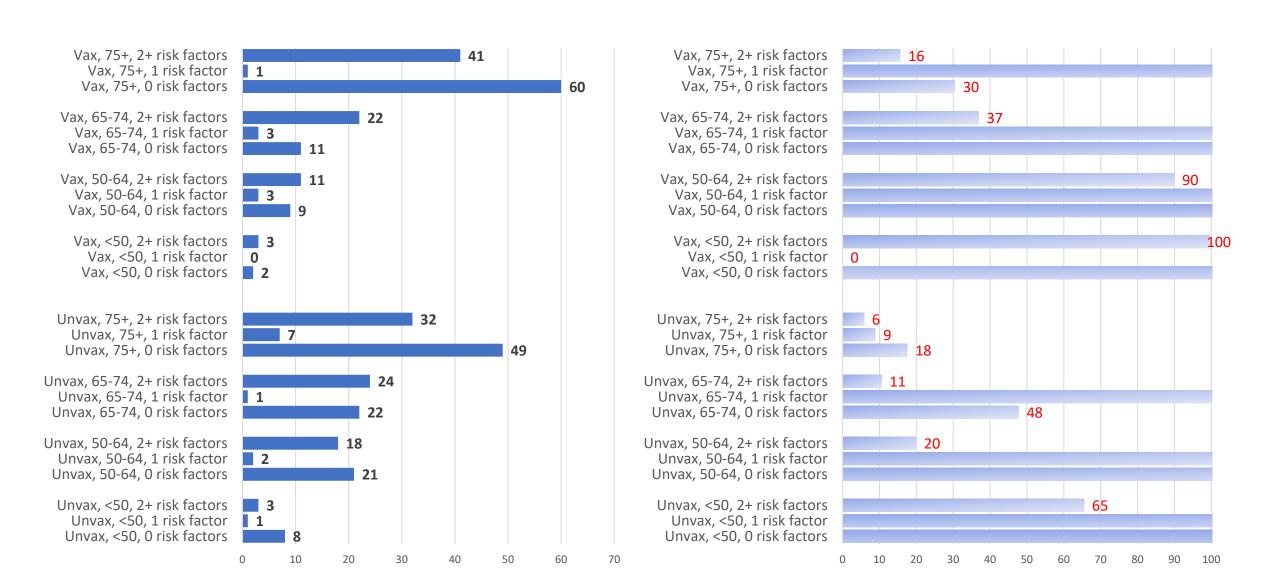
- Children with certain underlying conditions
- Overweight (BMI ≥25 kg/m², but <30 kg/m²)
- Sickle cell disease
- Substance use disorders
- Thalassemia

Mixed evidence

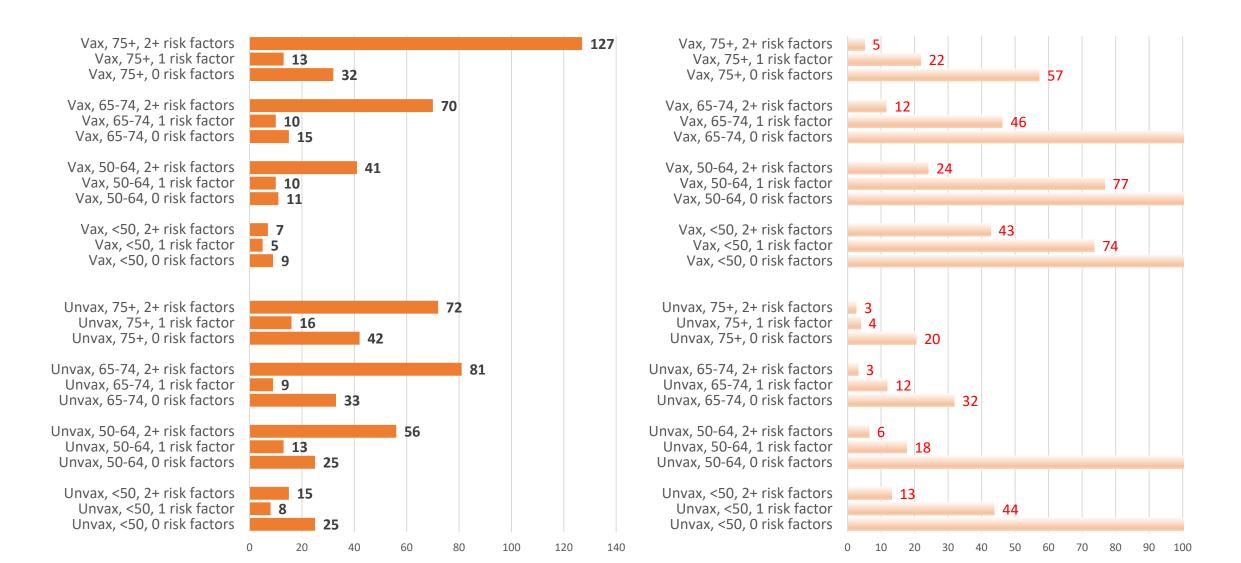
- Alpha 1 antitrypsin deficiency
- Asthma
- Bronchopulmonary dysplasia
- Hepatitis B
- Hepatitis C
- Hypertension*

^{*} indicates underlying conditions for which there is evidence for pregnant and non-pregnant people

COVID-19 deaths and NNT, Maine, Jan-Feb 2022



COVID-19 hospitalizations and NNT, Maine, Jan-Feb 2022



Considerations for COVID-19 Outpatient Treatment

Category	Groups
Highest Risk	 Moderately/Severely Immunocompromised***
for COVID-19	 Unvaccinated* or Vaccinated*, 75+ years
Severe Disease	 Unvaccinated*, 50+ years, 1+ clinical risk factors**
	 Unvaccinated, Pregnant⁺
Higher Risk	 Unvaccinated*, 65+ years
for COVID-19	 Vaccinated*, 65+ years, 1+ clinical risk factors**
Severe Disease	 Unvaccinated* or Vaccinated*, 2+ risk factors**
	 Residing in a congregate facility⁺⁺
High Risk	
for COVID-19	 All patients who meet EUA or prescriber information
Severe Disease	

*Pregnant:

COVID-19 patients who are pregnant and unvaccinated are at higher risk for severe disease than those who are vaccinated. Women in their postpartum period, and those who are vaccinated and have additional risk factors, are also at elevated risk.

++Congregate facility:

Includes persons living in nursing homes, assisted living facilities, jails prisons, and homeless shelters who do not meet higher-level criteria.

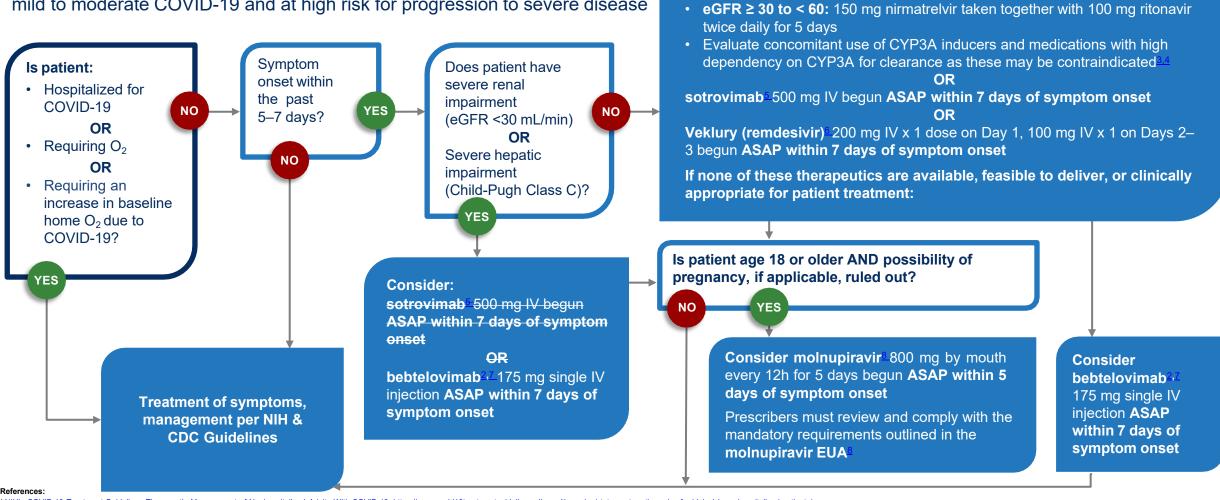
^{*}Unvaccinated refers to an individual who has not received 2 doses of an mRNA vaccine or 1 dose of the J&J vaccine. Vaccinated refers to an individual who received 2 doses of an mRNA vaccine or 1 dose of the J&J vaccine. Vaccinated individuals who have not received a vaccine booster dose are likely at higher risk for severe disease than those who are boosted, and providers may choose to prioritize such patients for treatment.

^{**}Clinical risk factors: some of the most important <u>Underlying Medical Conditions Associated with High Risk for Severe COVID-19 (US CDC)</u> include cancer, cardiovascular disease, chronic kidney disease, chronic lung disease, diabetes, immunocompromising conditions or receipt or immunosuppressive medications, obesity (BMI ≥30), pregnancy, sickle cell disease.

^{***}Immunocompromising conditions: Moderately or Severely Immunocompromised People (US CDC) include people who have been receiving active cancer treatment for tumors or cancers of the blood, received an organ transplant and are taking medicine to suppress the immune system, received a stem cell transplant within the last 2 years or taking medicine to suppress the immune system, moderate or severe primary immunodeficiency (such as DiGeorge syndrome, Wiskott-Aldrich syndrome), advanced or untreated HIV infection, or active treatment with high-dose corticosteroids or other drugs that suppress the immune response.

COVID-19 Outpatient Therapeutics Clinical Decision Aid for Ages 12+

Adult or pediatric patient (ages 12 and older weighing at least 40 kg) with mild to moderate COVID-19 and at high risk for progression to severe disease



8 Molnupiravir EUA. https://www.fda.gov/media/155054/download

https://aspr.hhs.gov/COVID-19/Therapeutics/Documents/COVID-Therapeutics-Decision-Aid.pdf

Consider one of the following therapeutics, if available 1, 2:

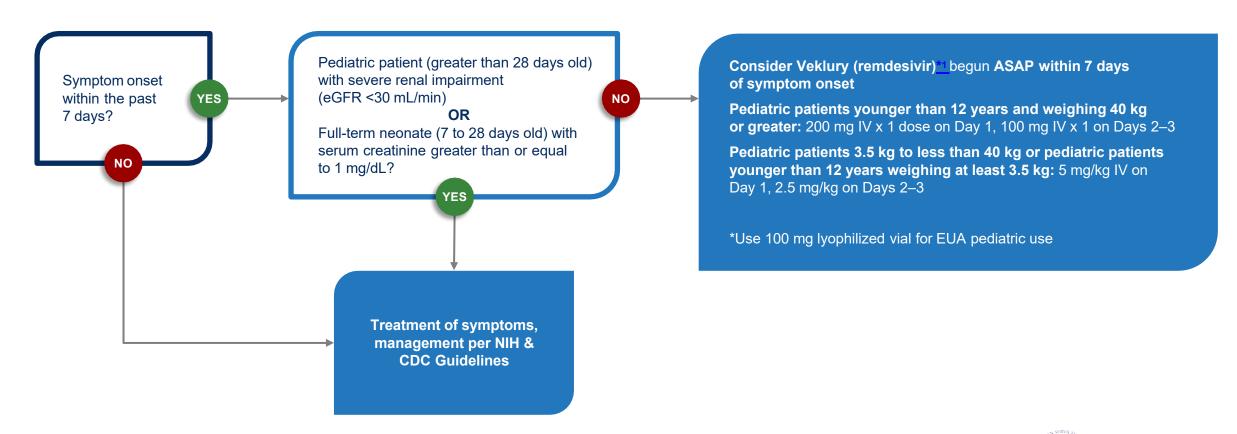
• eGFR ≥ 60 mL/min: 300 mg nirmatrelvir taken with 100 mg ritonavir twice

Paxlovida within 5 days of symptom onset

daily for 5 days

Clinical Decision Aid for Pediatric Patients

Outpatient 3.5 kg to less than 40 kg or younger than 12 years of age weighing at least 3.5 kg, with mild to moderate COVID-19 and at high risk for progression to severe disease



COVID-19 Outpatient Therapies (Summary)

	Paxlovid	bebtelovimab	remdesivir	molnupiravir
Effectiveness	88%	Unknown	87%	30%
Age allowed for use	≥ 12 years	≥ 12 years	Any age*	≥ 18 years
Initiate within # days of symptom onset	0–5 days	0–7 days	0–7 days	0–5 days
Route of administration	Oral	Intravenous	Intravenous	Oral
Duration of treatment	5 days	1 day	3 days	5 days
Pros	High efficacyOral	High efficacySingle IV infusion	High efficacyGreater experience	OralNo drug-drug interaction concerns
Cons	 Ritonavir- related drug- drug interactions 	• Requires IV infusion	 Requires 3 days of IV infusion 	 Low efficacy Not authorized for age 0-17 years Avoid in pregnancy Mutagenicity concerns

^{*}Remdesivir is FDA-approved for non-hospitalized patients 12 years and older (40 kg and up). It is also available under FDA EUA for patients <12 years old (3.5 to 40 kg).

Provider information: COVID-19 treatment

 $\underline{DHHS} \to \underline{MeCDC} \to \underline{Disease \ Surveillance} \to \underline{Epidemiology} \to \underline{Airborne \ and \ Direct \ Contact \ Diseases} \to \underline{Coronavirus} \to \underline{COVID-19 \ Treatment}$

Coronavirus Disease 2019 (COVID-19)

COVID-19 Homepage

Maine Data

General Information

Contact Tracing

Travelers

Healthcare Providers

Long Term Care Facilities and Congregate Living

Communities, Schools, and Workplaces

EPI Information

A-Z Index of Epidemiology Diseases

Contact Us

Disease Reporting

Request for Data

GetConnected GetAnswers. Social services help and information about COVID-19 in Maine, call 211, email info@211maine.org, text your ZIP

COVID-19 Treatment for Non-Hospitalized Patients

Treatment is available for people with certain medical conditions who are at high risk for s

Information about how patients can access treatment is available on the COVID Treatme

Available COVID-19 treatments

Several medicines are currently available for patients with COVID-19 at high risk of sever Drug Administration (FDA).

Medicine	Length of treatment	When to start
Paxlovid (PO)	5 days	Within 0-5 days after COVID-19 symptom start
Bebtelovimab (IV)	1 day	Within 0-7 days after COVID-19 symptom start
Remdesivir (IV)	3 days	Within 0-7 days after COVID-19 symptoms start
Molnupiravir (PO)	5 days	Within 0-5 days after COVID-19 symptoms start

https://www.maine.gov/dhhs/mecdc/infectious-disease/epi/airborne/coronavirus/providers.shtml

COVID-19: Healthcare Providers

On this page:

- Standing Order
- . Current Testing Guidelines for Maine State Lab

Individuals at high risk for progression to severe COVID-19

Individuals 18+ years old at high risk for progression to severe COVID-

- . Information for Providers Receiving Abbott BinaxNOW Antigen Tests
- Information for Providers Receiving AccessBio CareStart Antigen Tests
- COVID-19 Pre-Exposure Prophylaxis for Immunocompromised Patients
- . COVID-19 Webinars for Clinicians
- Popular Resources
- Health Alert Network (HAN) Advisories

Information about how to access treatment is available on the COVID Treatment in Maine page.

Recommended Prioritization for COVID-19 Therapeutics

Currently, supply of all available therapeutics is very good to excellent. Healthcare providers should offer all treatment options to patients at high risk for progression to severe disease.

Maine CDC has reviewed recent data for COVID-19 cases, hospitalizations, and deaths in the State to identify groups of patients who are at the highest risk of hospitalization or death from COVID-19. In the setting of limited therapeutics supply, prioritize use of treatments as follows:

Accessing Outpatient Treatment in Maine

Pharmacies, hospitals, and clinics, oh my!

- Oral antivirals available in selected Walmart and Hannaford stores
- Oral antivirals, monoclonals, and remdesivir available at Test to Treat sites offering testing, assessment, and several oral and IV treatments

 Patients can access treatment via their regular health care provider if they have one, or through Test to Treat locations across the State

Accessing COVID-19 outpatient treatment in Maine

Pharmacy locations with oral antivirals (Paxlovid and molnupiravir)

Walmart

Hannaford

PCHC

HealthReach

"Test-to-treat" sites with *testing*, *assessment*, oral antivirals, monoclonal antibody therapy, remdesivir

York Hospital

MaineHealth

Northern Light Health

St. Joe's Hospital

Redington Fairview

Northern Maine Medical Center

ConvenientMD

Hospital/clinic locations with monoclonal antibody therapy and remdesivir

Patient information: COVID-19 treatment



Home → COVID-19 Treatment in Maine

COVID-19 Treatment in Maine

Who should get treated for COVID-19

Treatment is available for people with certain <u>medical conditions</u> who are at high risk for severe illness.

Contact a health professional right away after a positive test to determine if you may be eligible, even if your symptoms are mild right now.

You will need a doctor's order to get treatment. You can contact your primary care doctor, or you can contact one of the many sites in the State that offer testing, evaluation, and treatment (see list below). Those locations are available to everyone in the State, whether or not you have a primary care doctor, and whether or not you typically get your healthcare at that location.

Jump to Treatment Locations

When to get treated for COVID-19

If you have tested positive for COVID-19, are experiencing mild to moderate symptoms, and you are at high risk for severe illness, contact your health care provider or one of the sites listed below to review treatment options.

Don't wait until you're very ill.

The treatments for COVID-19 need to be used in the first few days after symptoms begin, typically within the first 5-7 days.

If you have a weakened immune system or a <u>medical condition</u> that puts you at risk of severe disease, talk to your health care provider about whether you are a candidate for COVID-19 treatment and make sure you have at-home tests on hand or have access to testing.

Types of COVID-19 Treatment

Oral Antivirals

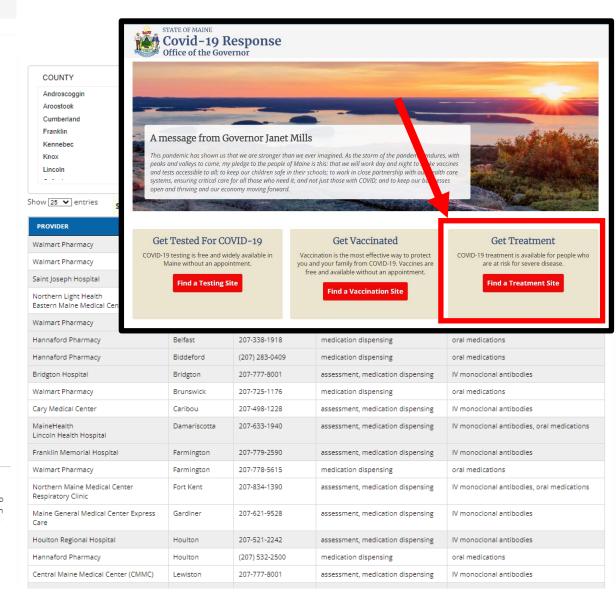
Antiviral treatments like PaxlovidTM and molnupiravir are available in pill form and can be taken at home.

Monoclonal Antibodies

Monoclonal antibodies like bebtelovimab are given to patients through an infusion into a vein (through an IV line) and are usually administered in a hospital or other health care setting.

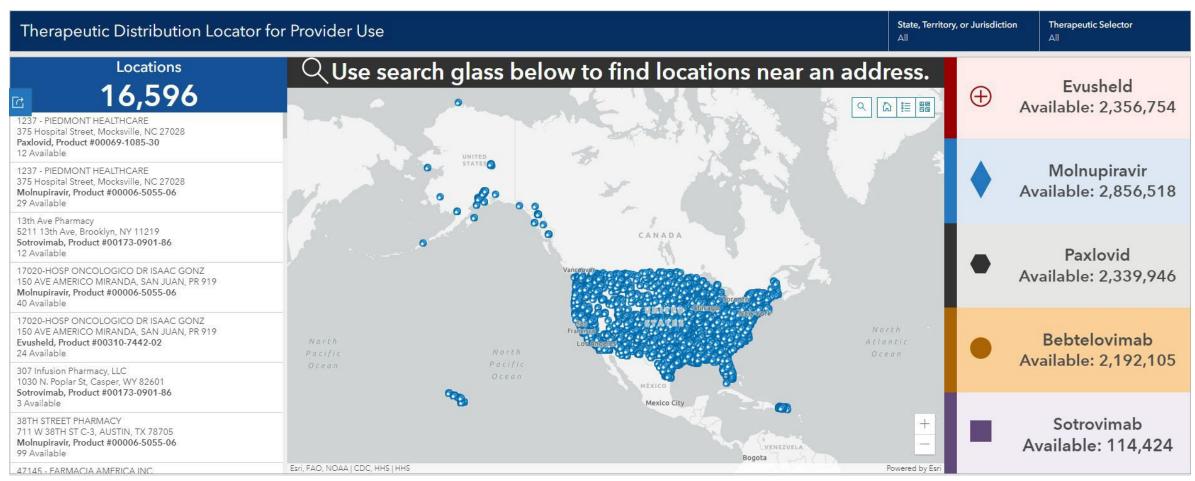
Intravenous Antivirals

Remdesivir is an antiviral medication that is given to patients through an infusion into a vein (through an IV line) and is usually administered in a hospital or other health care setting.



https://www.maine.gov/covid19/treatment

COVID-19 Therapeutic Locator Enhanced provider engagement re: treatment options and eligibility

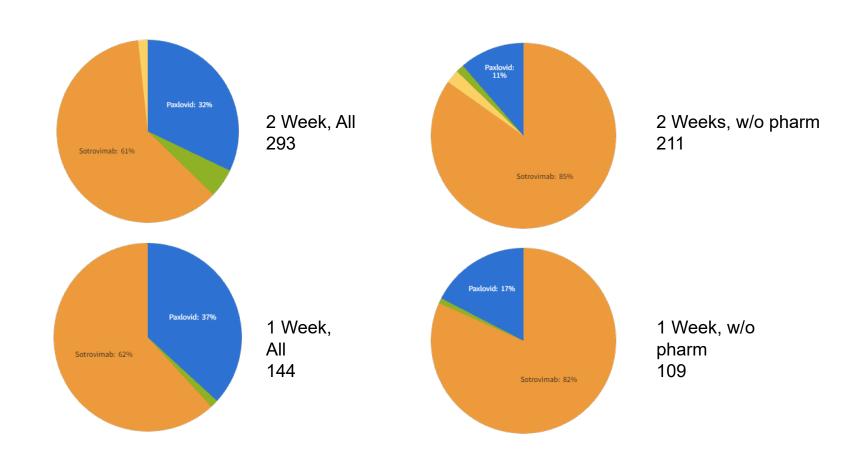


https://covid-19-therapeutics-locator-dhhs.hub.arcgis.com/



Barriers to Treatment (and Leaping Over Them)

Acceptance and selection of treatments



Why don't patients get treated early in illness?

- Patients lack...
 - Knowledge that treatment is available
 - Knowledge that treatment works well
 - Knowledge of who should get treated
 - Knowledge of how to access treatment
 - Ability to get tested early in illness
 - Ability to see healthcare provider rapidly after getting positive test result
 - Ability to access pharmacies, hospitals, and clinics with treatments

- Providers lack...
 - Knowledge about who should be treated
 - Knowledge about how to access treatment

DON'T DELAY: TEST EARLY, TREAT EARLY



KNOW YOUR RISK.

If you are at high risk for severe illness from COVID-19, know how to access treatment quickly. It could save your life.

GET TESTED.

Feeling unwell or have COVID-19 symptoms? TEST EARLY. If you test positive and have symptoms you may be eligible for treatment.





For more info & to find treatment:

GET TREATED.

If you test positive and have symptoms, EARLY TREATMENT IS CRITICAL, even when symptoms are

There are sites across Maine where you can be tested, assessed and treated, or where you can access medicine if you already have a prescription from your https://www.maine.gov/covid19/treatment doctor.

Source: Maine CDC

DON'T DELAY: TEST EARLY, TREAT EARLY

WHO IS CONSIDERED HIGH RISK?

Older adults + people of any age with the following:

- Cancer
- Chronic kidney disease
- Chronic liver disease
- Chronic lung diseases
- Cystic fibrosis
- Dementia or other neurological conditions
- Diabetes (Types 1 & 2)
- Disabilities
- Heart conditions
- HIV Infection

- Immunocompromised state
- Mental health conditions
- Overweight and obesity
- Physical inactivity
- Pregnancy
- Sickle cell disease or thalassemia.
- Smoking, current or former
- Solid organ or blood stem transplant
- Stroke or cerebrovascular disease
- Substance use disorders
- Tuberculosis

WHAT SHOULD YOU DO IF YOU **TEST POSITIVE FOR COVID-19?**



Seek treatment promptly.

Find a location:

maine.gov/covid19/treatment

Source: Maine CDC.

Why are patients still dying from COVID-19?

Key messages for healthcare providers:

- Become familiar with COVID-19 treatments for outpatients
- Talk to your high-risk patients about the value of treatment
- Encourage high-risk patients to have a plan to get tested and treated before they get sick

Key messages for high-risk patients:

- COVID-19 treatments are safe and effective and drastically reduce the risk of severe disease
- Treatment must be started within the first few days after symptom onset to be effective
- Have a plan to get tested, evaluated, and treated if you develop symptoms of COVID-19

Recommendations for healthcare providers

- Continue to encourage COVID-19 vaccination in everyone age 5 years or older, including booster vaccination in everyone age 12 years or older.
- Encourage high-risk patients to get vaccinated and get a booster. Immunocompromised patients should receive an additional vaccine dose and are eligible to receive preexposure prophylaxis
- Communicate with your high-risk patients that treatment for COVID-19 is available in Maine and needs to be started soon after symptom onset. Encourage high-risk patients to have a plan to get promptly tested, evaluated, and treated if they get sick.
- Obtain further information on clinical use of products through
 - NIH's COVID-19 Treatment Guidelines
 - Assistant Secretary for Preparedness and Response Public Health Emergency COVID-19
 Therapeutics site
 - Professional societies such as <u>IDSA's Guidelines on the Management of Patients with COVID-19</u>

Resources

Key resources

- Maine CDC: COVID-19 Treatment for Non-Hospitalized Patients (Information for Providers)

 https://www.maine.gov/dhhs/mecdc/infectious-disease/epi/airborne/coronavirus/covid19-treatment.shtml
- Maine CDC: COVID-19 provider information (information for providers; graphics to distribute) https://www.maine.gov/dhhs/mecdc/infectious-disease/epi/airborne/coronavirus/providers.shtml
- Maine CDC: COVID-19 Treatment in Maine (information for patients) https://www.maine.gov/covid19/treatment
- Maine CDC: Health Advisories (https://www.maine.gov/dhhs/mecdc/newhan.shtml)
- NIH: Coronavirus Disease 2019 (COVID-19) Treatment Guidelines (https://www.covid19treatmentguidelines.nih.gov)
- ASPR: COVID-19 Therapeutics (https://aspr.hhs.gov/COVID-19/Therapeutics)

Next webinar: Tuesday 4/12 @ 12pm

https://mainestate.zoom.us/j/83384535429

Meeting ID: 833 8453 5429

Meeting ID: 833 8453 5429

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+1 346 248 7799 US (Houston)
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Find your local number: https://mainestate.zoom.us/u/keev9ZGoew

How to get CME for attending this session

Live activity: https://www.surveymonkey.com/r/T8XK2L9

Recording: https://www.surveymonkey.com/r/TLC22LL